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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/637,495	08/11/2000	Gregory J. Hewlett	TI-28454	7603

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EXAMINER

KUMAR, SRILAKSHMI K

ART UNIT PAPER NUMBER

2629

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/637,495

Applicant(s)

HEWLETT ET AL.

Examiner

Srilakshmi K. Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

The following office action is in response to the Request for Continued Examination, filed on September 5, 2006. Claims 1-9 are pending. Claims 1-3 are amended.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. ***Claims 1-9*** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention
3. Regarding claims 1-3, the phrase "such that" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

More specifically the claims recite, "such that a viewer sees substantially the same image repeated for each refresh period of the frame period". Although the claims recite "such that", it can be shown where the phrase "such that" can easily be exchanged with phrases "such as" or "for example". Examiner is unclear as to whether the limitations of "such that a viewer sees substantially the same image repeated for each refresh period of the frame period" is part of the claimed invention. Appropriate correction is required.

Claims 4-9 are rejected as being dependent on a rejected base claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. ***Claims 1-9*** are rejected under 35 U.S.C. 102(e) as being anticipated by Baldwin (U.S. Patent No. 5,986,640).

With reference to **claim 1**, Baldwin teaches a method of receiving an image word for an image pixel (column 4, lines 1-4) and the image data word comprises of a plurality of bits (see Figures 4 and 5). Baldwin divides an image frame period into at least two refresh (reset) periods (see column 5, lines 8-20), wherein each refresh period comprises a period in which at least two image data bits are displayed (figure 4a-4e shows the division of sub-frames and column 5, lines 8-59). As shown in figures 6a - 6e, Baldwin teaches displaying the first image data bit during some, but not all, of the refresh period and displaying the second image data bit during more of the refresh period than the first image data bit was displayed. Further in Figure 6c it can be seen that the bits of the image word are displayed in a same predetermined relative order (from the outside to the inside) for each of the refresh periods, although not all bits (bits 2 and 1) of the image data word are displayed in each refresh period (see column 7, lines 14-62), such that a

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viewer sees substantially the same image repeated for each refresh period of the frame period (col. 7, lines 14-62).

With reference to **claim 2**, Baldwin teaches all that is required as explained above with reference to **claim 1**, Baldwin also teaches that these the display periods are allocated to prevent flicker of the image data bit display by the method described in rejection of **claim 1** (column 7, lines 19-25 and lines 34-47).

With reference to **claim 3**, Baldwin teaches all that is required as explained above with reference to **claims 1 and 2**, Baldwin also teaches a controlling circuit (119) that receives the video signal and determines the amount of time the light should be modulated on the mirror devices (column 4, lines 1-15) in accordance to the limitations as explained above with reference to **claims 1 and 2**; a display device (101) in electrical communication with the controller (see column 3, line 39-column 4, line 22), said display device for providing a modulated light beam to each of an array (117) of image pixels (see column 3, lines 58-62), said modulation in response to said processed image data from said controller (see column 4, lines 16-44).

With reference to **claims 4-9**, Baldwin teaches in Figure 6e a method of dividing an image frame period into at least three refresh periods wherein a first image data bit is displayed during at least one refresh period (1, 2), a second image data bit is displayed during at least two refresh periods (4a, 4b), and a third said image data hit is displayed during at least three refresh periods (16a, 16b, 16c) and where first second and third image data bits are displayed during different numbers of refresh periods.

Response to Arguments

6. Applicant's arguments filed September 5, 2006 have been fully considered but they are not persuasive.

The previous 35 USC 112, second paragraph rejection, in regards to indefinite claims based on the order of bits, is withdrawn. However, a new 35 USC 112, second paragraph rejection is issued above. Regarding claims 1-3, the phrase "such that" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

More specifically the claims recite, "such that a viewer sees substantially the same image repeated for each refresh period of the frame period". Although the claims recite "such that", it can be shown where the phrase "such that" can easily be exchanged with phrases "such as" or "for example". Examiner is unclear as to whether the limitations of "such that a viewer sees substantially the same image repeated for each refresh period of the frame period" is part of the claimed invention. Appropriate correction is required.

Applicant argues where the prior art of Baldwin fails to teach where each refresh period within an image frame displays the bits of an image in the same predetermined relative order. Examiner, respectfully, disagrees. As shown by Figures 6a-e, Baldwin consist of a period in which at least two image data bits are displayed. Also it is taught that the reset pulses are applied every two units to prepare the mirror device for their next orientation state (see column 8, lines 13-15). Therefore, as explained above Figure 6c teaches an image word shown in a predetermined relative order outside to inside, in each of the refresh periods.

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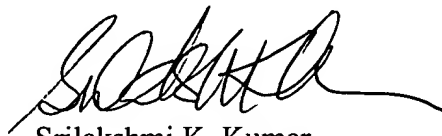
For these reasons it is believed that the present reference reads on the limitations of the claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srilakshmi K. Kumar whose telephone number is 571 272 7769. The examiner can normally be reached on 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571 272 3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Srilakshmi K. Kumar
Examiner
Art Unit 2629

SKK
November 9, 2006